FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. S/267 DIV	APPLN. NO. 10/680,000
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UNITED STATES. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
LCM	4,517,295	05/14/85	Bracke et al.	435	101	
LCM	4,582,865	04/15/86	Balazs et al.	524	29	
LCM	4,703,108	10/27/87	Silver et al.	530	356	
LCM	4,713,448	12/15/87	Balazs et al.	536	55.1	
LCM	4,780,414	10/25/88	Nimrod et al.	435	101	
LCM	4,784,659	11/15/88	Fleckenstein et al.	623	1	
LCM	4,801,539	01/31/89	Akasaka et al.	435	101	
LCM	4,897,349	01/30/90	Swann et al.	435	101	
LCM	4,957,744	09/18/90	della Valle et al.	424	401	
LCM	4,970,298	11/13/90	Silver et al.	530	356	
LCM	5,017,229	05/21/91	Burns et al.	106	162	
LCM	5,166,331	11/24/92	della Valle et al.	536	55.1	
LCM	5,270,300	12/14/93	Hunziker	514	12	
LCM	5,316,926	05/31/94	Brown et al.	435	101	
LCM	5,336,767	08/09/94	della Valle et al.	536	55.1	
LCM	5,356,883	10/18/94	Kuo et al.	514	54	
LCM	5,368,858	11/29/94	Hunziker	424	423	
LCM	5,413,791	05/09/95	Rhee et al.	424	422	
LCM	5,466,462	11/14/95	Rosenthal et al.	424	426	
LCM	5,468,787	11/21/95	Braden et al.	523	113	
LCM	5,502,081	03/26/96	Kuo et al.	514	777	
LCM	5,512,301	04/30/96	Song et al.	424	484	
LCM	5,527,893	06/18/96	Burns et al.	514	53	
LCM	5,565,210	10/15/96	Rosenthal et al.	424	426	
LCM	5,567,806	10/22/96	Abdul-Malak et al.	530	356	
LCM	5,616,568	04/01/97	Pouyani et al.	514	54	
LCM	5,652,347	07/29/97	Pouyani et al.	536	18.5	

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LCM	5,693,341	12/02/97	Schroeder	424	488	
LCM	5,700,476	12/23/97	Rosenthal et al.	424	426	
LCM	5,769,899	06/23/98	Schwartz et al.	623	18	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
LCM	WO 90/06767	06/28/90	PCT	~~A61K~~	~~37/02~~		
LCM	WO 96/15888	05/30/96	PCT	~~B28B3~~	~~00~~		
LCM	WO 97/45532	12/04/97	PCT	~~C12N~~	~~5/00~~		
LCM	WO 97/18244	5/22/97	PCT	~~C08B~~	~~37/08~~		
	~~FR 96 12200~~	~~10/07/96~~	~~France~~				X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Adams, M.E., "Viscosupplementation as articular therapy," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed.), Portland Press, London, pp. 243-253 (1998).
	Amiel et al., "The chondrogenesis of rib perichondrial grafts for repair of full thickness articular cartilage defects in a rabbit model: A one year postoperative assessment." Connect. Tissue Res. 18, pp. 27-39 (1988).
	Balazs and Laurent, "Round table discussion: new applications for hyaluronan," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed.), Portland Press, London, pp. 325-336 (1998).
	Band, P.A., " Hyaluronan derivatives: chemistry and clinical applications," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed.), Portland Press, London, pp. 33-42 (1998).
	Bitter and Muir, "A Modified Uronic Acid Carbazole Reaction," *Anal. Biochem.*, 4, pp. 330-334 (1962).
	Brittberg et al., "Treatment of deep cartilage defects in the knee with autologous chondrocyte transplantation," *New Engl. J. Med.*, 331, pp. 889-895 (1994).

EXAMINER Leigh C. Maier DATE CONSIDERED 5/26/05

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Cha, J.S., "Recent developments in the synthesis of aldehydes by reduction of carboxylic acids and their derivatives with metal hydrides. A review.," *Org. Prep. Proc. Int.*, 21, pp. 451-477 (1989).
	Cha et al., "Direct Transformation of Carboxylic Acids into Aldehydes through Acyloxy-9-borabicyclo [3.3.1]nonane," *Bull. Korean Chem. Soc.*, 9, pp. 48-52 (1988).
	Chu et al., "Articular cartilage repair using allogeneic perichondrocyte-seeded biodegradable porous polylactic acid (PLA): A tissue-engineering study," *J. Biomed. Mat. Res*,. 29, pp. 1147-1154 (1995).
	Curvall et al., "Modification of polysaccharides containing uronic acid residues," *Carbohydr. Res.*, 41, pp. 235-239 (1975).
	Dahl et al., "Preparation of Biologically Intact Radioiodinated Hyaluronan of High Specific Radioactivity: Coupling of 125I-Tyramine-Cellobiose to Amino Groups after Partial N-Deacetylation," *Anal. Biochem.*, 175, pp. 397-407 (1988).
	Danishefsky and Siskovic, "Conversion of carboxyl groups of mucopolysaccharides into amides of amino acid esters," *Carbohydr. Res.*, 16, pp. 199-205 (1971).
	Denlinger, J.L.,"Hyaluronan and its derivatives as viscoelastics in medicine," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives," T.C. Laurent (ed.), Portland Press, London, pp. 235-242 (1998).
	Drobnik, J., "Hyaluronan in drug delivery," *Adv. Drug Delivery Rev.*, 7, pp. 295-308 (1991).
	Fraser et al., "Catabolism of hyaluronan," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives," T.C. Laurent (ed.), Portland Press, London, pp. 85-92 (1998).
	Freed et al., "Joint resurfacing using allograft chondrocytes and synthetic biodegradable polymer scaffolds," *J. Biomed. Mat. Res.*, 28, pp. 891-899 (1994).
	Gombotz and Pettit, "Biodegradable Polymers for Protein and Peptide Drug Delivery," *Bioconjugate Chem.*, 6, pp. 332-351 (1995).
	Grammatikakis et al., "A Novel Glycosaminoglycan-binding Protein Is the Vertebrate Homologue of the Cell Cycle Control Protein, Cdc37," *J. Biol. Chem.*, 270, pp. 16198-16205 (1995).
	Grande et al., "The Repair of Experimentally Produced Defects in Rabbit Articular Cartilage by Autologous Chondrocyte Transplantation," *J. Orthop. Res.*, 7, pp. 208-218 (1989).
	Gustafson, S., "Hyaluronan in drug delivery," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed.), Portland Press, London, pp. 291-304 (1998).
	Harada et al., "Chondrogenesis and Osteogenesis of Bone Marrow-derived Cells by Bone-inductive Factor," *Bone*, 9, pp. 177-183 (1988).

EXAMINER Leigh C. Maier **DATE CONSIDERED** 5/26/05

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIAL	
	Hauselmann et al., "Synthesis and Turnover of Proteoglycans by Human and Bovine Adult Articular Chondrocytes Cultured in Alginate Beads," *Matrix*, 12, pp. 116-129 (1992).
	Hauselmann et al., "Adult human chondrocytes cultured in alginate form a matrix similar to native human articular cartilage," *Am J. Physiol.*, 271, pp. C742-C752 (1996).
LCM	Hohenadl et al., "Two Adjacent N-terminal Glutamines of BM-40 (Osteonectin, SPARC) Act as Amine Acceptor Sites in TransglutaminaseC-catalyzed Modification," *J. Biol. Chem.*, 270, pp. 23415-23420 (1995).
	Homminga et al., "Perichondral grafting for cartilage lesions of the knee," *J. Bone Joint Surg.*, 72-B, pp. 1003-1007 (1990).
	Homminga et al., "Repair of articular defects by perichondrial grafts: Experiments in the rabbit," *Acta Orthop. Scand.*, pp. 326-329 (1989).
	Hunziker and Rosenberg, "Repair of Partial-Thickness Defects in Articular Cartilage: Cell Recruitment from the Synovial Membrane," *J. Bone Joint Surg.*, 78-A, pp. 721-733 (1996).
	Itay et al., "Use of Cultured Embryonal Chick Epiphyseal Chondrocytes as Grafts for Defects in Chick Articular Cartilage," *Clin. Orthop.*, 220, pp. 284-303 (1987).
	Kalb and Cowley, "Hope for Damaged Joints," *Newsweek*, p. 55, January 29, 1996.
	King et al., "Beneficial actions of exogenous hyaluronic acid on wound healing," *Surgery*, 109, pp. 76-84 (1991).
	Knudson, C.B., "Hyaluronan Receptor-directed Assembly of Chondrocyte Pericellular Matrix," *J. Cell Biol.*, 120, pp. 825-834 (1993).
	Knudson and Knudson, "Hyaluronan-binding proteins in development, tissue homeostasis, and disease," *FASEB J.*, 7, pp. 1233-1241 (1993).
	Kuettner et al., "Synthesis of Cartilage Matrix by Mammalian Chondrocytes in vitro. I. Isolation, Culture Characteristics, and Morphology," *J. Cell Biol.*, 93, pp. 743-750 (1982).
LCM	Kuo et al., "Chemical Modification of Hyaluronic Acid by Carbodiimides," *Bioconjugate Chem.*, 2, pp. 232-241 (1991).
	Kurzer and Douraghi-Zadeh, "Advances in the Chemistry of Carbodiimides," *Chem. Rev.*, 67, pp. 107-152 (1967).
	Kvam et al., "Purification and Characterization of Hyaluronan from Synovial Fluid," *Anal. Biochem.*, 211, pp. 44-49 (1993).
	Larsen, N.E., "Management of adhesion formation and soft tissue augmentation with viscoelastics: hyaluronan derivatives," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives," T.C. Laurent (ed.), Portland Press, London, pp. 267-281 (1998).

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EXAMINER INITIAL	
	Larsen and Balazs, "Drug delivery systems using hyaluronan and its derivatives," *Adv. Drug Delivery Rev.*, 7, pp. 279-293 (1991).
	Laurencin et al., "Poly(anhydride) administration in high doses in vivo: Studies of biocompatibility and toxicology," *J. Biomed. Mat. Res.*, 24, pp. 1463-1481 (1990).
	Laurent and Fraser, "Hyaluronan," *FASEB J.*, 6, pp. 2397-2404 (1992).
	Maleski and Knudson, "Hyaluronan-Mediated Aggregation of Limb Bud Mesenchyme and Mesenchymal Condensation during Chondrogenesis," *Exp. Cell Res.*, 225, pp. 55-66 (1996).
	McPherson et al., "Collagen Fibrillogenesis In Vitro: A Characterization of Fibril Quality as a Function of Assembly Conditions," *Collagen Rel. Res.*, 5, pp. 119-135 (1985).
	Morgelin et al., "The cartilage proteoglycan aggregate: assembly through combined protein-carbohydrate and protein-protein interactions," *Biophys. Chem.*, 50, pp. 113-128 (1994).
	Nakahara et al., "Culture-Expanded Periosteal-Derived Cells Exhibit Osteochondrogenic Potential in Porous Calcium Phosphate Ceramics In Vivo," *Clin. Orthop.*, 276, pp. 291-298 (1992).
LCM	Noble et al., "Induction of inflammatory gene expression by low-molecular-weight hyaluronan fragments in macrophages," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives," T.C. Laurent (ed), Portland Press, London, pp. 219-225 (1998).
	O'Driscoll et al., "Durability of Regenerated Articular Cartilage Produced by Free Autogenous Periosteal Grafts in Major Full-Thickness Defects in Joint Surfaces under the Influence of Continuous Passive Motion," *J. Bone Joint Surg.*, 70-A, pp. 595-606 (1988).
	Ogamo et al., "Preparation and properties of fluorescent glycosamino-glycuronans labeled with 5-aminofluorescein," *Carbohydr. Res.*, 105, pp. 69-85 (1982).
	Parameswaran et al., "Labeling of ε-lysine cross-linking sites in proteins with peptide substrates of factor XIIIa and transglutaminase," *Proc. Natl. Acad. Sci. U.S.A.*, 87, pp. 8472-8475 (1990).
LCM	Pouyani et al., "Functionalized Derivatives of Hyaluronic Acid Oligosaccharides: Drug Carriers and Novel Biomaterials," *Bioconjugate Chem.*, 5, pp. 339-347 (1994).
	Prestwich et al., "Chemical modification of hyaluronic acid for drug delivery, biomaterials and biochemical probes," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed)., Portland Press, London, pp. 43-65 (1998).
	Richards and Knowles, "Glutaraldehyde as a Protein Cross-linking Reagent," *J. Mol. Biol.*, 37, pp. 231-233 (1968).

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EXAMINER INITIAL	
	Robinson et al., "Regenerating Hyaline Cartilage in Articular Defects of Old Chickens Using Implants of Embryonal Chick Chondrocytes Embedded in a New Natural Delivery Substance," *Calcif. Tissue Int.*, 46, pp. 246-253 (1990).
	Sampath et al., "Recombinant Human Osteogenic Protein-1 (hOP-1) Induces New Bone Formation in Vivo with a Specific Activity Comparable with Natural Bovine Osteogenic Protein and Stimulates Osteoblast Proliferation and Differentiation in Vitro," *J. Biol. Chem.*, 267, pp. 20352-20362 (1992).
	Scott, J.E., "Chemical morphology of hyaluronan," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed)., Portland Press, London, pp. 7-15 (1998).
	Sheng et al., "A Specific Quantitative Colorimetric Assay for L-Asparagine," *Anal. Biochem.*, 211, 242-249 (1993).
	Shortkroff et al., "Healing of chondral and osteochondral defects in a canine model: the role of cultured chondrocytes in regeneration of articular cartilage," *Biomaterials*, 17, pp. 147-154 (1996).
	Strachan et al., "Hyaluronate in rheumatology and orthopaedics: Is there a role?" *Ann. Rheum. Dis.*, 49, 949-952 (1990).
	Vercruysse et al., "Synthesis and in vitro Degradation of New Polyvalent Hydrazide Cross-Linked Hydrogels of Hyaluronic Acid," *Bioconjugate Chem.*, 8, pp. 686-694 (1997).
	Vilaseca et al., "Protein Conjugates of Defined Structure: Synthesis and Use of a New Carrier Molecule," *Bioconjugate Chem.*, 4, pp. 515-520 (1993).
	Wakitani et al., " Mesenchymal Cell-Based Repair of Large, Full-Thickness Defects of Articular Cartilage," *J. Bone Joint Surg.*, 76-A, pp. 579-592 (1994).
	Wakitani et al., "Repair of rabbit articular surfaces with allograft chondrocytes embedded in collagen gel," *J. Bone Joint Surg.*, 71-B, pp. 74-80 (1989).
	Wang et al., "Recombinant human bone morphogenetic protein induces bone formation," *Proc. Natl. Acad. Sci. U.S.A.*, 87, pp. 2220-2224 (1990).
	Weiss, C., "Viscoseparation and viscoprotection as therapeutic modalities in the musculoskeletal system," in The Chemistry, Biology and Medical Applications of Hyaluronan and Its Derivatives, T.C. Laurent (ed)., Portland Press, London, pp. 255-265 (1998).
	Wong, S.S., "Chemistry of protein conjugation and crosslinking," CRC Press, Inc., Boca Raton, FL, p. 27 (1993).
	Yang and Moses, "Transforming Growth Factor β1-induced Changes in Cell Migration, Proliferation, and Angiogenesis in the Chicken Chorioallantoic Membrane," *J. Cell Biol.*, 111, pp. 731-741 (1990).

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